

CLAIMS:

1. An assembly comprising:
  - a first microelectronic element having a first surface and a plurality of contacts exposed at the first surface;
  - a second microelectronic element having a top surface and a plurality of contacts exposed at the top surface; and
  - conductive elastomeric posts formed by curing a conductive elastomeric material, wherein each of the contacts of the first microelectronic element is respectively aligned with one of the contacts of the second microelectronic element, and further wherein at least some of the contacts of the first element are connected to the respectively aligned contacts of the second element by the conductive elastomeric material.
2. The assembly of claim 1, wherein the conductive elastomeric material comprises an elastomeric matrix and conductive particles.
3. The assembly of claim 2, wherein the elastomeric matrix is a silicone elastomer or a low modulus polymer blend.
4. The assembly of claim 2, wherein the conductive particles include a nonconductive portion and a conductive portion that surrounds the nonconductive portion.
5. The assembly of claim 1 further comprising a compliant layer disposed between the first and second microelectronic elements.
6. The assembly of claim 5, wherein the first microelectronic element is a semiconductor chip, and further wherein the second microelectronic element is a

semiconductor chip.

7. A method of manufacturing an assembly comprising:

providing a first microelectronic element having a first surface and a plurality of contacts exposed at the first surface;

providing a second microelectronic element having a top surface and a plurality of contacts exposed at the top surface;

forming a plurality of conductive elastomeric posts that connect at least some of the contacts of the first microelectronic element to at least some of the contacts of the second microelectronic element; and

injecting a compliant material between the first surface of the first microelectronic element and the top surface of the second microelectronic element to form a compliant layer.